Hammond Draft Permit Fact Sheet

General Information

Permit Number:	WI-0024171-10-0	
Permittee Name:	Village of Hammond	
Address:	Village Hall 455 Davis St.	
City/State/Zip:	Hammond WI 54015	
Discharge Location:	1751 Clyde Hanson Dr., Hammond, WI 54015. Discharge from absorption ponds (seepage cells) located in the SW ¼ of the NE ¼ of Section 28, T29N, R17W, Town of Hammond.	
Receiving Water:	the groundwaters of the Kinnickinnic River Watershed of the St. Croix River Basin in St. Croix County	
StreamFlow ($Q_{7,10}$):	N/A	
Stream Classification:	N/A	
Design Flow(s)	Annual Average	0.232 MGD
Significant Industrial Loading?	No	
Operator at Proper Grade?	All except Nitrogen (N – Total Nitrogen)	
Approved Pretreatment Program?	N/A	

Facility Description

The Village of Hammond operates a wastewater treatment system with an annual average design flow of 0.232 million gallons per day (MGD) and an actual annual average flow of 0.100 MGD in 2020 (average based on partial months). The wastewater treatment facility consists of centrate receiving, primary screening and grit removal, followed by ISAM tank, SAM tank and a sequencing batch reactor (SBR). Construction of the Hammond SBR has been staged and has a 20-year design capacity of 0.465 MGD. Currently effluent from the Hammond wastewater treatment facility is discharged to one of four infiltration basins (outfall 005). Wastewater has not been discharged to the natural wetland was last discharged in since April, 2006 therefore the corresponding sample point 002 has been removed from the permit. Groundwater near the infiltration basins (seepage cells) is monitored using a groundwater monitoring system. Sludge will be distributed to the West Central Wisconsin Biosolids Facility. Monitoring changes for this reissuance include 1) changing groundwater wells 801 and 803 to point of standard wells, 2) removing monitoring for groundwater well 806, and 3) groundwater well monitoring for alternate concentration limits (ACLs) for chloride and ammonia have been reduced from 200 mg/L to 180 mg/L, and ammonia from 1.1 mg/L to 0.097 mg/L.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)**
702	INFLUENT: 0.093 MGD (1/2021-10/2021)	Representative influent samples shall be collected within the headworks building between the screening and grit removal.
003	LAND APPLICATION: 30 US tons generated/hauled	As long as sludge is shipped to the West Central Wisconsin Biosolids Facility (WCWBF) for disposal, representative sludge samples shall be collected once per year and monitored for List 1. Sludge samples shall be collected prior to hauling and test results shall be reported on Form 3400-49 "Waste Characteristics Report". Hauled sludge reports shall be submitted on Form 3400-52 "Other Methods of Disposal or Distribution Report" following each year that sludge is hauled.
005	LAND TREATMENT: 0.091 MGD (1/2021-10/2021)	Representative effluent samples shall be collected prior to discharge to the absorption ponds.

Sample Point Designation For Groundwater Monitoring Systems			
System	**Sample Pt Number**	**Well Name**	**Comments**
Absorption Pond Monitoring Wells	801	801	Down gradient, Point of standard well
	802	802	Down gradient, Non-point of standard well
	803	803	Down gradient, Point of standard well
	807	807	Down gradient, Non-point of standard well
	808	808	Down gradient, Non-point of standard well
	809	809	Upgradient, Background well

1 Influent - Proposed Monitoring

Sample Point Number: 702- Inf btwn screen/grit removal

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	Weekly	24-Hr Flow Prop Comp	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Suspended Solids, Total		mg/L	Weekly	24-Hr Flow Prop Comp	
pH Field		su	Weekly	Grab	
Temperature		deg F	Weekly	Grab	
Nitrogen, Total Kjeldahl		mg/L	Monthly	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH3-N) Total		mg/L	Monthly	24-Hr Flow Prop Comp	
Nitrogen, Organic Total		mg/L	Monthly	Calculated	
Nitrogen, Nitrite + Nitrate Total		mg/L	Monthly	24-Hr Flow Prop Comp	

Changes from Previous Permit:

None

Explanation of Limits and Monitoring Requirements

The parameters are standard monitoring requirements and frequency for minor municipal facilities. Tracking of BOD5 and total suspended solids are required for percent removal requirements found in s. NR 210.05, Wis. Adm. Code.

2 Land Treatment – Proposed Monitoring and Limitations

Sample Point Number: 005- DISCHARGE TO ABSORPTION PONDS

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		MGD	Daily	Total Daily	
Nitrogen, Total	Monthly Avg	10 mg/L	3/Week	Calculated	
BOD5, Total	Monthly Avg	50 mg/L	3/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total		mg/L	3/Week	24-Hr Flow Prop Comp	
pH Field	Daily Max	9.0 su	3/Week	Grab	
pH Field	Daily Min	6.0 su	3/Week	Grab	
Chloride	Monthly Avg	250 mg/L	2/Month	24-Hr Flow Prop Comp	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Solids, Total Dissolved		mg/L	2/Month	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH3-N) Total		mg/L	3/Week	24-Hr Flow Prop Comp	
Nitrogen, Total Kjeldahl		mg/L	3/Week	24-Hr Flow Prop Comp	
Nitrogen, Nitrite + Nitrate Total		mg/L	3/Week	24-Hr Flow Prop Comp	

Changes from Previous Permit:

None.

Explanation of Limits and Monitoring Requirements

Requirements for land treatment of municipal wastewater are determined in accordance with ch. NR 206 Wis. Adm. Code.

The Monitoring Frequencies for Individual Wastewater Permits guidance (April 12, 2021) recommends that standard monitoring frequencies be included in individual wastewater permits based on the size and type of the facility, in order to characterize effluent quality and variability, to detect events of noncompliance, and to ensure fairness and consistency in permits issued across the state. Guidance and requirements in administrative code were considered when determining the appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term.

The substantial compliance determination and permit application reviews determined no changes to monitoring parameters, frequencies, or sample types are needed this permit term.

3 Groundwater – Proposed Monitoring and Limitations

3.1 Groundwater Monitoring System for Absorption Pond Monitoring Wells

Location of Monitoring system: Absorption Ponds Monitoring Wells, SW ¼ of the NE ¼ of Section 28, T29N, R17W, Town of Hammond, St. Croix County, WI

Wells to be Monitored: 801, 802, 803, 807, 808, 809

Well Used To Calculate PALs: 809

Point of Standard Wells: 801, 803, 809

Parameter	**Units**	**Preventative Action Limit**	**Enforcement Standard**	**Frequency**
Depth To Groundwater	feet	*****	N/A	1/ 6 Months

Groundwater Elevation	feet MSL	*****	N/A	1/ 6 Months
Chloride Dissolved	mg/L	180	250	1/ 6 Months
Nitrogen, Organic Dissolved	mg/L	2.3	N/A	1/ 6 Months
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	8.9	10	1/ 6 Months
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	1/ 6 Months
Solids, Total Dissolved	mg/L	790	N/A	1/ 6 Months
pH Field	su	8.0	N/A	1/ 6 Months

Changes from Previous Permit:

Due to changes in trends in the background well used to calculate the limits, chloride and ammonia preventative action limits (PALs) have slight reductions. Chloride changed from 200 mg/L to 180 mg/L, and ammonia changed from 1.1 mg/L to 0.97 mg/L.

Explanation of Limits and Monitoring Requirements

Groundwater limits and requirements are determined in accordance with ch. NR 140, Wis. Adm. Code. Indicator parameter Preventive Action Limit (PAL) values are established per s. NR 140.20 Wis. Adm. Code. Alternative Concentration Limits as allowed under s. NR 140.28 Wis. Adm. Code, are established on a case by case basis. See Groundwater Evaluation Memo dated November 1, 2021 by Woody Myers for more information.

4 Land Application - Proposed Monitoring and Limitations

Municipal Sludge Description						
Sample Point	**Sludge Class (A or B)**	**Sludge Type (Liquid or Cake)**	**Pathogen Reduction Method**	**Vector Attraction Method**	**Reuse Option**	**Amount Reused/Disposed (Dry Tons/Year)**
003		Liquid	N/A	N/A	Hauled	30
Does sludge management demonstrate compliance? Yes						
Is additional sludge storage required? No						
Is Radium-226 present in the water supply at a level greater than 2 pCi/liter? No						
Is a priority pollutant scan required? No						

Sample Point Number: 003- SEQ BATCH REACTOR SLUDGE

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Solids, Total		Percent	Annual	Grab	
Arsenic Dry Wt	Ceiling	75 mg/kg	Annual	Grab	
Arsenic Dry Wt	High Quality	41 mg/kg	Annual	Grab	
Cadmium Dry Wt	Ceiling	85 mg/kg	Annual	Grab	
Cadmium Dry Wt	High Quality	39 mg/kg	Annual	Grab	
Copper Dry Wt	Ceiling	4,300 mg/kg	Annual	Grab	
Copper Dry Wt	High Quality	1,500 mg/kg	Annual	Grab	
Lead Dry Wt	Ceiling	840 mg/kg	Annual	Grab	
Lead Dry Wt	High Quality	300 mg/kg	Annual	Grab	
Mercury Dry Wt	Ceiling	57 mg/kg	Annual	Grab	
Mercury Dry Wt	High Quality	17 mg/kg	Annual	Grab	
Molybdenum Dry Wt	Ceiling	75 mg/kg	Annual	Grab	
Nickel Dry Wt	Ceiling	420 mg/kg	Annual	Grab	
Nickel Dry Wt	High Quality	420 mg/kg	Annual	Grab	
Selenium Dry Wt	Ceiling	100 mg/kg	Annual	Grab	
Selenium Dry Wt	High Quality	100 mg/kg	Annual	Grab	
Zinc Dry Wt	Ceiling	7,500 mg/kg	Annual	Grab	
Zinc Dry Wt	High Quality	2,800 mg/kg	Annual	Grab	

Changes from Previous Permit:

None

Explanation of Limits and Monitoring Requirements

Requirements for land application of municipal sludge are determined in accordance with ch. NR 204 Wis. Adm. Code. Ceiling and high quality limits for metals in sludge are specified in s. NR 204.07(5).

Special Reporting Requirements

None

Other Comments:

Removal of the surface water sample point 002 since no discharge since 2006 and according to Permit Termination Guidance finalized 11/05/2019, authorized under Sections 283.53(2) Wis. State Statutes and NR 203.136 (3)(d) Wis. Admin. Code.

Discontinued use of groundwater well 806 since it was found to not be representative of the facility discharge. See groundwater evaluation memo dated November 1, 2021 by Woody Myers for more information.

Public Notice Newspaper:

Central St. Croix News, PO Box 296, Hammond, WI 54015-0206

Attachments:

Substantial Compliance Determination 8/3/2021 completed by Adebowale Adesanwo attached in SWAMP

NR 140 Groundwater Evaluation Report 11/1/2021 completed by Woody Myers attached in SWAMP

Proposed Expiration Date:

03/31/2027

Justification Of Any Waivers From Permit Application Requirements

N/A

Prepared By:

Angela Parkhurst Wastewater Specialist

Date: 12/15/2021

cc: **SWAMP**